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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,258	10/06/2003	Takashi Kikuchihara	1419.1045C	3452

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EXAMINER	
NGUYEN, HANH N	
ART UNIT	**PAPER NUMBER**
2834	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	**Application No.** 10/678,258	**Applicant(s)** KIKUCHIHARA ET AL.	
	Examiner Nguyen N. Hanh	**Art Unit** 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *amendments filed 1/29/07*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-15 and 32-61* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *5-15 and 32-61* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *29 January 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☒ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☒ Certified copies of the priority documents have been received in Application No. 09/734,703.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In view of Applicant's arguments, the Examiner withdraws the rejection under 35 USC 103 (a) to claims 5-15 and 32-61 as being unpatentable over Lucky (GB 2046602) in view of Sato (JP 10-084650). However, the claims are not in a condition for allowance in view of new ground of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 5-15 and 38-43, 46-59 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato.

Regarding claim 5, Sato discloses a removable motor for a toy vehicle (preamble, patentable weight not given), comprising: a motor unit (1 in Fig. 1) for propelling the toy vehicle (intended use, patentable weight not given) and having first (5-2) and second (5-1) electrode terminals; a cylindrical case for covering and securing the motor unit, including a longitudinal axis, and a large case body (6) having a cylindrical conductive portion which is electrically connected between the second electrode terminal (abstract) and an external battery directly or through at least one conductive member (it is inherent that the case 6 is in electrical connection with a battery directly or by means of electric conductor because a vibration motor always requires an electric power source); and an insulating small case body (7) directly provided with the first electrode terminal (5-2), wherein the first electrode terminal extends through the insulating small case body in a direction approximately parallel to the axis of the cylindrical case, laterally contacts the small case body, and includes a first end which is electrically connected to the motor unit (to the commutator 9-1), and a second end which is exposed on an exterior end portion of the insulating small case body, to be connected to the external battery directly or through at least one conductive member (inherent).

Regarding claim 7, Sato also shows a motor wherein the rotor is electrically connected to the first and second electric terminals and all other limitations of the claimed invention have been fulfilled by Sato et al. as in claim 5.

Regarding claim 9, Sato also shows the motor wherein one of the first electrode terminal of the motor unit and the cylindrical conductive portion of the large case body is electrically connected to a first electrode of the battery, and the other of the first electrode terminal of the motor unit and the cylindrical conductive portion is conductively connected to a second electrode of the battery (inherent because the first and the second terminal of a motor must be connected to a power source) and all other limitations of the claimed invention have been fulfilled by Sato et al. as in claim 5.

Regarding claim 11, it is noted that all limitations of the claimed invention have been fulfilled by Sato as in claims 7 and 9.

Regarding claim 12, Sato also shows the motor wherein the motor unit further includes a rotary shaft (2 in Fig. 2), a commutator (9-1) and a contact spring (13), and the first electrode terminal (5-2) xtends through the insulating small case body in an approximately parallel direction to the rotary shaft, at a distance from the rotary shaft, and includes a first end which is electrically connected to the commutator through the contact spring, and a second end which projects outwardly from the insulating small case body to connect to an external battery directly or through a conductive member, and wherein the first electrode terminal laterally contacts the small case body (7).

Regarding claim 14, it is noted that all limitations of the claimed invention have been fulfilled by Sato as in claims 11 and 12.

Regarding claims 6, 8, 13 and 15 Sato also shows the motor wherein the second end of the first electrode (or electrical) terminal (5-1 in Fig. 2) is turned to form a contact head.

Regarding claim 10, Sato also shows the motor wherein the motor unit further comprises a commutator (9-1) and contact springs (13 and a portion of a metal strip between the outer casing 6 and inner casing 7), and the first and second electrode terminals of the motor are electrically connected to the commutator through the contact springs.

Regarding claims 38-43, Sato also shows the motor wherein the at least one conductive member electrically connected to the cylindrical conductive portion has an arch shape.

Regarding claims 46-51, Sato also shows the motor further comprising recess portions (between the outer casing 6 and inner casing 7) for connecting the large case body and the insulating small case body (7 as described in the abstract).

Regarding claims 52-57, Sato also shows the motor wherein the cylindrical conductive portion (6 in Fig. 2) is electrically connected through a conductive piece extending between an exterior peripheral portion of the small case body (7) and an interior of the cylindrical conductive portion (6).

Regarding claim 58, Sato et al. also show a removable motor for a toy vehicle (preamble, patentable weight not given), comprising: a motor unit having first (5-2 in Fig. 2) and second electrode terminals (5-1); a cylindrical case for covering and securing the motor unit, including a longitudinal axis, and a large case body (6) having a cylindrical conductive portion which is electrically connected between the second electrode terminal and an external battery directly (Fig. 2 shows the cylindrical conductive portion 6 directly connects the second electrode terminal to external power source); and an insulating small case body directly provided with the first electrode terminal, wherein the first electrode terminal extends through the insulating small case body in a direction approximately parallel to the axis of the cylindrical case, laterally contacts the small case body, and includes a first end which is electrically connected to the motor unit, and a second end which is exposed on an exterior end portion of the insulating small case body, to be connected to the external battery through at least one conductive member.

Regarding claim 59, it is noted that all limitations of the claimed invention have been fulfilled by Sato as in claims 58 and 7

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Lehmann et al.

Regarding claims 32-37, Sato shows all limitations of the claimed invention except showing the motor wherein the battery is a button-type battery.

However, Lehmann et al. disclose a device using button-type battery (Col. 3, line 1) for the purpose of reducing the size of the device.

Since Sato and Lehmann et al. are in the same field of endeavor, the purpose disclosed by Lehman et al. would have been recognized in the pertinent art of Sato.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Sato by using button-type battery as taught by Lehmann et al. for the purpose of reducing the size of the device.

4. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Lehmann et al. and further in view of Mabuchi et al.

Regarding claim 44, Sato and Lehmann et al. show all limitations of the claimed invention except showing the motor wherein the battery has an axis which is oriented parallel to the axis of the cylindrical case.

However, Mabuchi et al. disclose the motor wherein the battery (3 in Fig. 10) has an axis which is oriented parallel to the axis of the cylindrical case (1) for the purpose of simplifying the assembly process (Col. 1, lines 45-53).

Since Sato, Lehmann et al. and Mabuchi et al. are in the same field of endeavor, the purpose disclosed by Mabuchi et al. would have been recognized in the pertinent art of Sato and Lehmann et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Sato and Lehmann et al. by using the battery has an axis which is oriented perpendicular to the axis of the cylindrical case as taught by Mabuchi et al. for the purpose of simplifying the assembly process.

5. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Lehmann et al. and further in view of Sansalone.

Regarding claim 45, Sato and Lehmann et al. show all limitations of the claimed invention except showing the motor wherein the battery has an axis which is oriented perpendicular to the axis of the cylindrical case.

However, Sansalone discloses the motor wherein the battery (57 in Fig. 3) has an axis which is oriented perpendicular to the axis of the cylindrical case (Fig. 10) for the purpose of facilitating the manufacturing process (Col. 2, lines 44-46).

Since Sato, Lehmann et al. and Sansalone are in the same field of endeavor, the purpose disclosed by Sansalone would have been recognized in the pertinent art of Sato and Lehmann et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Sato and Lehmann et al. by using the battery has an axis which is oriented perpendicular to the axis of the cylindrical case as taught by Sansalone for the purpose of facilitating the manufacturing process.

6. Claims 60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Mabuchi et al.

Regarding claims 60 and 61, Sato shows all limitations of the claimed invention except showing the motor wherein the first electrode terminal includes a first end which is electrically connected to the motor unit, and a second end which is exposed on an exterior end portion of the insulating small case body, to be connected to the external battery directly.

However, Mabuchi et al. disclose the motor wherein the first electrode terminal (11 in Fig. 10) includes a first end which is electrically connected to the motor unit (Col. 3, lines 15-22), and a second end which is exposed on an exterior end portion of the insulating small case body, to be connected to the external battery (3 in Fig. 10) directly for the purpose of providing external leads to be connected to a battery (Col. 1, lines 54-57).

Since Sato and Mabuchi et al. are in the same field of endeavor, the purpose disclosed by Mabuchi et al. would have been recognized in the pertinent art of Sato.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Sato by using the first electrode terminal includes a first end which is electrically connected to the motor unit, and a second end which is exposed on an exterior end portion of the insulating small case body, to be connected to the external battery directly as taught by Mabuchi et al. for the purpose of providing external leads to be connected to a battery.

Response to Arguments

7. Applicant's arguments filed 3/13/02 have been fully considered but they are not persuasive. The applicant's argument is on the ground that the reference the Examiner relies on, Sato is non-analogous art because Sato directed to a vibrator motor. The Examiner respectfully disagrees with the Applicant because the vibrator motor or a motor in a toy have the same structure and they have the same principles of operation (the use of the interaction of the magnetic flux between the stationary part or stator and the rotational part or the rotor to convert electrical energy to mechanical energy). The vibrator motor carries an eccentric weight in the shaft to cause vibration and the toy motor can also be used as a vibration motor with the eccentric weight. Therefore, Sato reference should be treated as analogous in art.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

April 13, 2007

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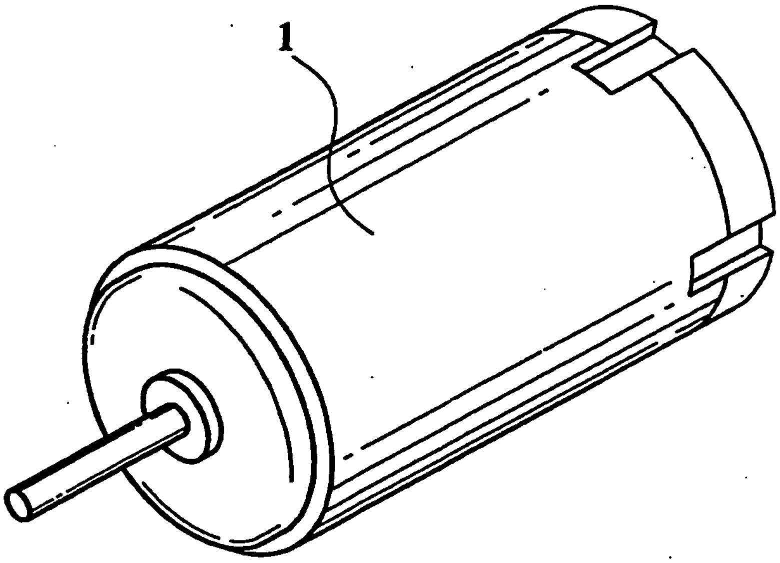
Application No. 10/678,258
Response to Office Action dated
October 27, 2006
DOCKET NO.: 1419.1045C
Replacement Sheet

Approved by Examiner
HNN
4/13/07

FIG.1



For illustration purpose only

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not a drawing.
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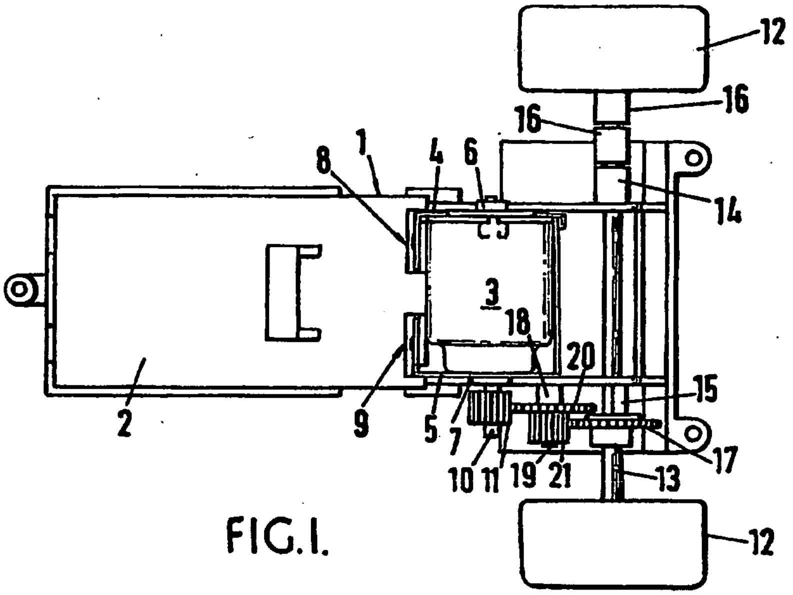

FIG.1.

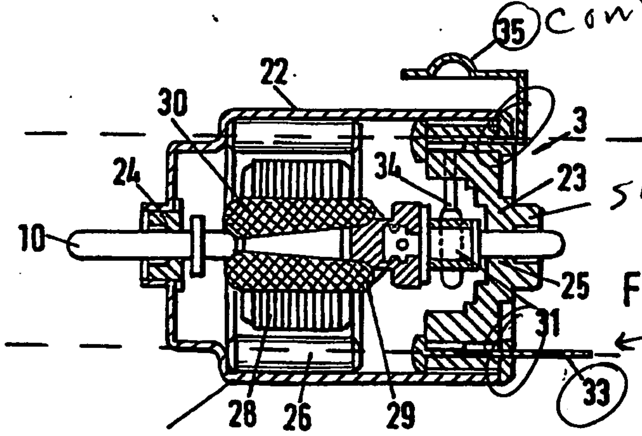

FIG.2.

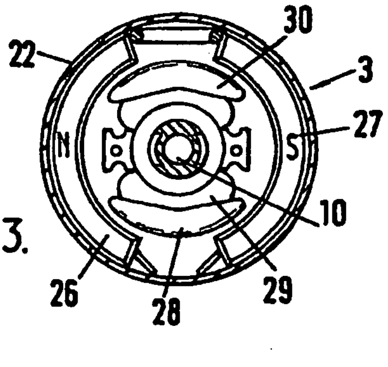

FIG.3.